

## ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES)

This document gives pertinent information concerning the reissuance of the AZPDES permit listed below. This facility uses treated wastewater for irrigation and water features and discharges to tributaries of the Rio de Flag River in the Little Colorado River Basin, and is considered to be a minor facility under the NPDES program. The effluent limitations contained in this permit will maintain the Water Quality Standards listed in Arizona Administrative Code (A.A.C.) R18-11-101 et. seq. This permit is proposed to be issued for a period of 5 years.

Permittee's Name:	The True Life Companies, LLC
Permittee's Mailing Address:	The True Life Companies, LLC 8601 N. Scottsdale Rd. – Suite 335 Scottsdale, AZ 85253, USA
Facility Name:	Estates at Pine Canyon
Facility Address or Location:	Estates at Pine Canyon Pine Canyon Golf Course 3000 S. Clubhouse Circle Flagstaff, AZ. 86005
County:	Coconino
Contact Person(s): Phone/e-mail address	Spencer Ropte, Lab Manager 928-440-5168 spencer@ibelabs.com
AZPDES Permit Number:	AZ0024902
Inventory Number:	105222

I. STATUS OF PERMIT(s)	
AZPDES permit applied for:	Renewal
Date application received:	8/8/2018
Date application was determined administratively complete:	11/1/2018
Previous permit number (if different):	NA
Previous permit expiration date:	2/4/2019

**208 Consistency:**

Based on review of the application, there are no changes to the facility that require a new determination of consistency with the Regional Water Quality Management Plan.

The True Life Companies, LLC. Does not have any other applicable water quality permits issued by ADEQ applicable to the Pine Canyon Estates golf course.

**II. GENERAL FACILITY INFORMATION**

Type of Facility:	Irrigation impoundments at the Pine Canyon Golf Course.
Facility Location Description:	The Estates at Pine Canyon is located south of Flagstaff and southeast of the juncture of Interstate 40 and Route 487 and has an area of approximately 651 acres which includes the Pine Canyon Golf Course. Treated municipal wastewater is piped from the Rio de Flag WWTP and/or the Wildcat Hill WWTP through a City-wide reuse system to the main effluent storage pond that is in an unnamed wash. The treated municipal wastewater is distributed to four ponds located in three drainages on the property which are all tributaries to the Rio de Flag River. The lowest of the ponds rarely overflows, but if it does, the effluent flows down an unnamed wash which is an eventual tributary to the Rio de Flag River.
Nature of facility discharge:	Class A treated municipal wastewater from the Rio de Flag WWTP and/or the Wildcat Hill WWTP in the City of Flagstaff
Discharge Flow:	The amount of effluent delivered to the storage pond will vary with irrigation demand. The average daily amount is .068 million gallons per day. Flow information as provided by Rio del Flag to Pine Canyon metering system. Pine Canyon to monitor and record meter readings on a daily basis via the display at the outside of the vault.
Continuous or intermittent discharge:	Facility is classified as an intermittent discharger. It is located in Flagstaff where more extreme winter conditions exist, as such no irrigation discharge occurs from mid-November to mid-April during the months of freezing temperatures.

**Note:**

This facility is not a public owned treatment works (POTW). As described above, this is a golf course that receives effluent from Rio de Flag and Wildcat Hill WWTP to use for irrigation. The application received for this discharge was the 2A/2S application, which is the for publicly owned wastewater treatment plants (POTWs). Even though this facility is not a POTW, ADEQ used the information in this application to obtain the necessary information for this permit renewal.

### III. RECEIVING WATER

The State of Arizona has adopted water quality standards to protect the designated uses of its surface waters. Streams have been divided into segments and designated uses assigned to these segments. The water quality standards vary by designated use depending on the level of protection required to maintain that use.

Receiving Water :	The effluent storage pond is located in an unnamed wash, which is a tributary to the Rio de Flag River.
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River Basin:	Rio de Flag River in the Little Colorado River Basin
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Outfall Location:	Outfall 001: Township 21 N, Range 7E, Section 34 Latitude 35° 09' 32", Longitude 111° 38' 26"
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The outfall discharges to, or the discharge may reach, a surface water listed in Appendix B of A.A.C. Title 18, Chapter 11, Article 1.

Designated uses for the receiving water listed above:	<p>The Rio de Flag River has the following listed designated uses:</p> <ul style="list-style-type: none"> <li>• Aquatic and Wildlife effluent dependent water (A&amp;Wedw)</li> <li>• Partial Body Contact (PBC)</li> </ul>
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Is the receiving water on the 303(d) list?	No, and there are no TMDL issues associated.
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Given the uses stated above, the applicable narrative water quality standards are described in A.A.C. R18-11-108, and the applicable numeric water quality standards are listed in A.A.C. R18-11-109 and in Appendix A thereof. There are two standards for the Aquatic and Wildlife uses, acute and chronic. In developing AZPDES permits, the standards for all applicable designated uses are compared and limits that will protect for all applicable designated uses are developed based on the standards.

### IV. DESCRIPTION OF DISCHARGE

Because the facility is in operation and discharges have occurred, effluent monitoring data are available. The following is the measured effluent quality reported in the application.

Parameters	Units	Maximum Daily Discharge Concentration
Total Residual Chlorine	µg/L	150 µg/L

### V. STATUS OF COMPLIANCE WITH THE EXISTING AZPDES PERMIT

Date of most recent inspection:	07/28/2015; no potential violations were noted as a result of this inspection.
DMR files reviewed:	02/2014 through 10/2018
Lab reports reviewed:	N/A – All lab reports as supplied by Rio de Flag WWTP and Wildcat Hill WWTP
DMR Exceedances:	Chlorine Exceedances in May 2014, June 2014, July 2014, August 2014, July 2014, August 2014, September 2014, March 2016, April 2016, May 2016, June 2016,

	August 2016, October 2016, November 2016, January 2017, February 2017, and June 2017. No other exceedances were noted.
NOVs issued:	October 2014 - for Total Residual Chlorine
NOVs closed:	January 2015 for Total Residual Chlorine – All compliance conditions met
Compliance orders:	None

## VI. PROPOSED PERMIT CHANGES

The following table lists the major changes from the previous permit in this draft permit.

Parameter	Existing Permit	Proposed permit	Reason for change
Reporting Location	Mail in hard copies of DMRs and other attachments	DMRs and other reports to be submitted electronically through myDEQ portal	Language added to support the NPDES electronic DMR reporting rule that became effective on December 21, 2015.
Permittee Name	True Life Company PC AZ Holdings LLC	The True Life Companies, LLC	The permittees name has been corrected, doing business as The True Life Companies, LLC according to the AAC directory.
Discharge AZPDES Flow Record	Not required	Required	ADEQ requires discharge flow record for facilities that discharge on an intermittent basis.
Copper, Chromium VI, Cyanide, Mercury, Selenium, Zinc	Listed on Table 1 – Effluent Limitations as conditional monitoring only.	Parameters removed from Table 1	The source water is the effluent of the Rio de Flag and/or Wildcat Hill WWTP, which both have AZPDES permits regulating a discharge to the Rio de Flag River. The conditional reporting for these contaminants was duplicative and is no longer necessary.

Whole Effluent Toxicity (WET)	Monitoring as action levels	No monitoring required	Data submitted indicated no reasonable potential (RP) to exceed standard. Source water is being tested for WET prior to discharge under this permit.
<p>Anti-backsliding considerations – “Anti-backsliding” refers to statutory (Section 402(o) of the Clean Water Act) and regulatory (40 CFR 122.44(l)) requirements that prohibit the renewal, reissuance, or modification of an existing NPDES permit that contains effluent limits, permit conditions, or standards that are less stringent than those established in the previous permit. The rules and statutes do identify exceptions to these circumstances where backsliding is acceptable. This permit has been reviewed and drafted with consideration of anti-backsliding concerns.</p> <p>The conditional effluent limitations for copper, chrome VI, cyanide, mercury, zinc, selenium and zinc have been removed from the permit because ADEQ reevaluated the permit conditions and determined the conditional monitoring for these parameters was duplicative and no longer necessary. The source water making up the discharge under this permit is effluent from two AZPDES regulated discharges. The source water is being evaluated for reasonable potential for these parameters and if RP exists, effluent limitations will be included in those respective permits. This reevaluation is being considered new information and is allowable under the exception listed under 402(o)(2)(b)(i). In addition, the receiving water is not listed on the 303(d) list as impaired for these parameters.</p> <p>Limits are retained in the draft permit for parameters where reasonable potential (RP) for an exceedance of a standard continues to exist or is indeterminate. In these cases, limits will be recalculated using the most current Arizona Water Quality Standards (WQS).</p>			

## VII. DETERMINATION OF EFFLUENT LIMITATIONS and ASSESSMENT LEVELS

When determining what parameters need monitoring and/or limits included in the draft permit, both technology-based and water quality-based criteria were compared and the more stringent criteria applied.

### **Technology-based Limitations:**

The permitted facility is a golf course, therefore there are no technology based limitations are include in the permit.

### **Numeric Water Quality Standards:** As outlined in A.A.C. R18-11-109 and Appendix A:

Per 40 CFR 122.44(d)(1)(ii), (iii) and (iv), discharge limits must be included in the permit for parameters with “reasonable potential” (RP), that is, those known to be or expected to be present in the effluent at a level that could potentially cause any applicable numeric water quality standard to be exceeded. RP refers to the possibility, based on the statistical calculations using the data submitted, or consideration of other factors to determine whether the discharge may exceed the Water Quality Standards. The procedures used to determine RP are outlined in the *Technical Support Document for Water Quality-based Toxics Control (TSD)* (EPA/505/2-90-001). In most cases, the highest reported value for a parameter is multiplied by a factor (determined from the variability of the data and number of samples) to determine a “highest estimated value”. This value is then compared to the lowest applicable Water Quality Standard for the receiving

water. If the value is greater than the standard, RP exists and a water quality-based effluent limitation (WQBEL) is required in the permit for that parameter. RP may also be determined from BPJ based on knowledge of the treatment facilities and other factors. The basis for the RP determination for each parameter with a WQBEL is shown in the table below.

It is assumed that RP exists for exceedance of water quality criteria for the pollutants *E. coli* and, if chlorine or bromine is used in the treatment process, total residual chlorine (TRC). These parameters have been shown through extensive monitoring of WWTPs to fluctuate greatly and thus are not conducive to exclusion from limitation due to a lack of RP. Therefore, the draft permit contains WQBELs for *E. coli* and TRC.

The proposed permit limits were established using a methodology developed by EPA. Long Term Averages (LTA) were calculated for each designated use and the lowest LTA was used to calculate the average monthly limit (AML) and maximum daily limit (MDL) necessary to protect all uses. This methodology takes into account criteria, effluent variability, and the number of observations taken to determine compliance with the limit and is described in Chapter 5 of the TSD. Limits based on A&W criteria were developed using the “two-value steady state wasteload allocation” described on page 99 of the TSD. When the limit is based on human health criteria, the monthly average was set at the level of the applicable standard and a daily maximum limit was determined as specified in Section 5.4.4 of the TSD.

**Mixing Zone:**

Arizona water quality rules require that water quality standards be achieved without mixing zones unless the permittee applies and is approved for a mixing zone. Since the receiving stream for this discharge is ephemeral prior to the discharge, no water is available for a mixing zone and all water quality criteria are applied at end-of pipe. This means that the effluent concentration must meet stream standards.

**Hardness:** The permittee was not required to sample for hardness because all hardness dependent metal had was being reported by the city of Flagstaff.

**Whole Effluent Toxicity (WET):** The permittee performed 2 rounds of passing WET testing. WET testing is no longer required in the permit. The source water is being monitored for WET by the City of Flagstaff in the Rio de Flag and Wildcat Hill AZPDES permits.

**Permit Limitations and Monitoring Requirements:**

The table that follows summarizes the parameters that are limited in the permit and the rationale for that decision. Also included are the parameters that require monitoring without any limitations or that have not been included in the permit at all and the basis for those decisions. The corresponding monitoring requirements are shown for each parameter. In general, the regulatory basis for monitoring requirements is per 40 CFR §122.44(i) *Monitoring requirements*, and 40 CFR §122.48(b), *Required monitoring*; all of which have been adopted by reference in A.A.C. R18-9-A905, *AZPDES Program Standards*.

Parameter	Lowest Standard / Designated Use		Maximum Reported Daily Value	No. of Samples	Estimated Maximum Value	RP Determination	Proposed Monitoring Requirement/ Rationale (1)
Flow	---		---	---	---	---	Discharge flows are calculated via a metered vault system, installed by Rio del Flag, by Pine Canyon staff.
Chlorine, Total Residual (TRC)	5 µg/L/ A&Wedw chronic		150 µg/L	XX	N/A	RP always expected when chlorine or bromine is used for disinfection.	TRC is to be monitored as a discrete sample and a WQBEL remains in the permit. 40 CFR Part 136 specifies that discrete samples must be collected for chlorine. At least one sample per month must coincide with WET testing to aid in the determination of the cause of toxicity, if toxicity is detected.
Whole Effluent Toxicity (WET)	No toxicity (A.A.C. R18-11-108(A)(6) )	<i>Pseudo-kirchneriella subcapitata</i> (2)	1TUc	2	N/A	No RP	Monitoring no longer required.
		<i>Pimephales promelas</i>	1 TUc	2	N/A	No RP	Monitoring no longer required.
		<i>Ceriodaphnia dubia</i>	1 TUc	2	N/A	No RP	Monitoring no longer required.

Footnotes:

- (1) The monitoring frequencies are as specified in the permit.  
 (2) Formerly known as *Selenastrum capricornutum* or *Raphidocelis subcapitata*.



## **VIII. NARRATIVE WATER QUALITY STANDARDS**

All narrative limitations in A.A.C. R18-11-108 that are applicable to the receiving water are included in Part I, Sections B and C of the draft permit.

## **IX. MONITORING AND REPORTING REQUIREMENTS (Part II of Permit)**

Section 308 of the Clean Water Act and 40 CFR Part 122.44(i) require that monitoring be included in permits to determine compliance with effluent limitations. Additionally, monitoring may be required to gather data for future effluent limitations or to monitor effluent impacts on receiving water quality.

Monitoring frequencies are based on the nature and effect of the pollutant, as well as a determination of the minimum sampling necessary to adequately monitor the facility's performance.

For the purposes of this permit, Discrete (i.e., grab) samples are specified in the permit for parameters that for varying reasons are not amenable to compositing.

Monitoring locations are specified in the permit (Part I.A and Part I.F) in order to ensure that representative samples of the discharge are obtained.

The requirements in the permit pertaining to Part II, Monitoring and Reporting, are included to ensure that the monitoring data submitted under this permit is accurate in accordance with 40 CFR 122.41(e). The permittee has the responsibility to determine that all data collected for purposes of this permit meet the requirements specified in this permit and is collected, analyzed, and properly reported to ADEQ.

The permit (Part II.A.2) requires the permittee to keep a Quality Assurance (QA) manual at the facility, describing sample collection and analysis processes; the required elements of the QA manual are outlined.

Reporting requirements for monitoring results are detailed in Part II, Sections B.1 and 2 of the permit, including completion and submittal of Discharge Monitoring Reports (DMRs).

The permittee is responsible for conducting all required monitoring and reporting the results to ADEQ on DMRs or as otherwise specified in the permit.

**Electronic reporting.** The US EPA has published a final regulation that requires electronic reporting and sharing of Clean Water Act National Pollutant Discharge Elimination System (NPDES) program information instead of the current paper-based reporting (Federal Register, Vol. 80, No. 204, October 22, 2015). Beginning December 21, 2016 (one year after the effective date of the regulation), the Federal rule required permittees to make electronic submittals of any monitoring reports and forms called for in their permits. ADEQ has created an online portal called myDEQ that allows users to submit their discharge monitoring reports and other applicable reports required in the permit.

Requirements for retention of monitoring records are detailed in Part II.D of the permit.



## **XI. SPECIAL CONDITIONS (Part V in Permit)**

### **Best Management Practices (BMPs)**

The permit requires the permittee to update as necessary and continue to implement the existing Best Management Plan for the use of chemicals on the golf course turfed areas to minimize runoff of these chemicals into the washes.

### **Permit Reopener**

This permit may be modified based on newly available information; to add conditions or limits to address demonstrated effluent toxicity; to implement any EPA-approved new Arizona water quality standard; or to re-evaluate reasonable potential (RP), if assessment levels in this permit are exceeded [A.A.C. R18-9-B906 and 40 CFR Part 122.62 (a) and (b)].

## **XII. ANTIDEGRADATION**

Antidegradation rules have been established under A.A.C. R18-11-107 to ensure that existing surface water quality is maintained and protected. The discharge from the Pine Canyon Estates Golf Course will be to an effluent-dependent water. Except for flows resulting from rain events, the only water in the wash will be the effluent. Therefore, the discharge and the receiving water will normally be one and the same. Effluent quality limitations and monitoring requirements have been established under the proposed permit to ensure that the discharge will meet the applicable water quality standards. As long as the permittee maintains consistent compliance with these provisions, the designated uses of the receiving water will be presumed protected, and the facility will be deemed to meet currently applicable antidegradation requirements under A.A.C. R18-11-107.

## **XIII. STANDARD CONDITIONS**

Conditions applicable to all NPDES permits in accordance with 40 CFR, Part 122 are attached as an appendix to this permit.

## **XIV. ADMINISTRATIVE INFORMATION**

### **Public Notice (A.A.C. R18-9-A907)**

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft AZPDES permit or other significant action with respect to an AZPDES permit or application. The basic intent of this requirement is to ensure that all interested parties have an opportunity to comment on significant actions of the permitting agency with respect to a permit application or permit. This permit will be public noticed in a local newspaper after a pre-notice review by the applicant and other affected agencies.

### **Public Comment Period (A.A.C. R18-9-A908)**

Rules require that permits be public noticed in a newspaper of general circulation within the area affected by the facility or activity and provide a minimum of 30 calendar days for interested parties to respond in writing to ADEQ. After the closing of the public comment period, ADEQ is required to respond to all

significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

**Public Hearing (A.A.C R18-9-A908(B))**

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if the Director determines there is a significant amount of interest expressed during the 30-day public comment period, or if significant new issues arise that were not considered during the permitting process.

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**EPA Review (A.A.C. R18-9-A908(C))**

A copy of this draft permit and any revisions made to this draft as a result of public comments received will be sent to EPA Region 9 for review. If EPA objects to a provision of the draft, ADEQ will not issue the permit until the objection is resolved.

**XV. ADDITIONAL INFORMATION**

Additional information relating to this proposed permit may be obtained from:

Arizona Department of Environmental Quality  
Water Quality Division – Surface Water Permits Unit  
Attn: Jessica Kohls  
1110 West Washington Street  
Phoenix, Arizona 85007

Or by contacting Jessica Kohls at (602) 771 –0391 or by e-mail at [kohls.jessica@azdeq.gov](mailto:kohls.jessica@azdeq.gov)

## **XVI. INFORMATION SOURCES**

While developing effluent limitations, monitoring requirements, and special conditions for the draft permit, the following information sources were used:

1. AZPDES Permit Application Forms 2A and 2S, received August 8, 2018, along with supporting data, facility diagram, and maps submitted by the applicant with the application forms.
2. Supplemental information to the application received by ADEQ on October 24, 2018.
3. ADEQ files on the Estates at Pine Canyon.
4. ADEQ Geographic Information System (GIS) Web site
5. Arizona Administrative Code (AAC) Title 18, Chapter 11, Article 1, *Water Quality Standards for Surface Waters*, adopted December 31, 2016.
6. A.A.C. Title 18, Chapter 9, Article 9. *Arizona Pollutant Discharge Elimination System* rules.
7. Code of Federal Regulations (CFR) Title 40:
  - Part 122, *EPA Administered Permit Programs: The National Pollutant Discharge Elimination System*.
  - Part 124, *Procedures for Decision Making*.
  - Part 133, *Secondary Treatment Regulation*.
  - Part 503, *Standards for the Use or Disposal of Sewage Sludge*.
8. EPA Technical Support Document for Water Quality-based Toxics Control dated March 1991.
9. *Regions 9 & 10 Guidance for Implementing Whole Effluent Toxicity Testing Programs*, US EPA, May 31, 1996.
10. *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA /821-R-02-013).
11. U.S. EPA NPDES Permit Writers' Manual, September 2010.